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Professor takes sabbatical for research

by Fran Crumb, Information Directorate

ROME, N.Y. — Dr. Kaliappa Ravindran of the City College of the City University of New York (CUNY) is researching a computer security technique called “Dissent-based Voting” at the Air Force Research Laboratory’s Information Directorate. The research explores using redundant computers, so if some of them are destroyed or overtaken by an adversary, then the remaining ones allow a mission to continue. Voting is employed as means to resolve the multiple outputs produced by these redundant computers so that even if some of the computers are faulty the correct result reaches its destination.

Ravindran, who won a research associateship from the National Research Council to support his work this past summer, arrived at the AFRL Rome Research Site in September and will continue his research through next May.

The National Research Council Associateship is awarded to postdoctoral scientists and engineers of unusual promise and ability to infuse national laboratories with bright, highly motivated, recent doctoral graduates and senior investigators with established records of research productivity, according to Dr. Kevin A. Kwiat, a senior computer engineer in the directorate’s Information Grid Division.

Ravindran, who holds a doctorate in computer science from the University of British Columbia, spent this past summer exploring how distributed computer systems can be developed so that they are insulated against programs such as viruses, which are damaging. His current work will become part of a directorate in-house program called the Assured Communications Research Center (ACRC).

One of the ACRC goals is to engage in collaboration between industry and academia as fostered by the directorate’s Information Institute and Expert Science and Engineering Program. With advocacy from the Information Institute, Ravindran successfully applied to CUNY for spending his sabbatical as a collaborator within the ACRC. CUNY is funding half of his Rome sabbatical. @